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A NEW ECCENE FOSSIL FROM TEXAS.

BY T. H. ALDRICH, CINCINNATI, OHIO.

Omalaxis Singleyi n. sp.

Shell flat, smooth, tricarinate, one carina on each edge and one on the periphery of the body whorl; apex impressed; whorls four, but three showing above, suture deeply

excavated, upper and lower part of whorls inclining toward suture. Mouth nearly quadrangular. Length 1mm.; breadth 3mm. Locality: Lee Co., Texas.

This is the second species now known from the Atlantic Eocene. The first was described by I. Lea from the Claiborne sand as "Orbis rotella." For the generic synonymy see Dall's "Report on the Mollus-

ca," 1889, part 2, p. 276. Discovered by J. A. Singley, Esq., and named in his honor.

NEW FORMS OF WESTERN LIMNIADES.

BY HENRY HEMPHILL, SAN DIEGO, CAL.

Limnæa (Leptolimnea) Pilsbryi Hemphill.

Shell elongated, narrow, somewhat solid, smooth, of a light horn-color; consisting of about six roundly-shouldered whorls, the last flattened on its sides and occupying a little more than half the length

of the shell; lines of growth very delicate, suture deep; aperture oval, longer than wide, outer lip acute; inner lip subreflexed.

Length \$, breadth \$ of an inch. Habitat: Fish Spring, Nevada.

I collected a few specimens of this interesting shell in the month of June, 1868, at this locality, after a long and hard day's ride of 40 miles horseback. Another long ride next day of 50 miles to water, compelled an early start and thus the opportunity to secure more specimens was lost.

Limnæa stagnalis var. occidentalis Hemphill.

Shell large, globose, very thin and fragile; of a light horn-color; whorls five, the last rapidly increasing in size and constituting about three-quarters the entire length of the shell and generally covered with revolving malleations separated by obtuse, irregular lines more or less conspicuous; lines of growth somewhat irregular and conspicuous; spire short, sharp and acute, consisting of three obliquely twisted whorls and the nucleus; suture well impressed; aperture globosely oval, longer than wide; outer lip thin, sharp, acute, subreflexed near its junction with the columella; inner lip sinuous and well defined, columellar strongly twisted.

Length of the largest specimen 15 inch, breadth 1 inch. Habitat: Lake Whatcom, Whatcom Co., Washington.

There is considerable distortion in the fifteen or twenty specimens of this interesting variety that I found on the shores of the above lake in November, 1889. This shell would probably be considered new by many conchologists, but I regard this as simply a telescoped, so to speak, variety of the metropolitan stagnalis. It might be called with propriety the L. auricularia of America, and occupies a position midway between L. stagnalis and L. auricularia and creates a suspicion in my mind that the latter after all is but a form of the former species. I found two living specimens in the lake. These I intended to have preserved in spirit, but not having a large mouthed bottle at hand I placed them in a box with some living Selenites Vancouverensis, intending to remove them before night; this I neglected to do and the next morning when I opened the box, I was horrified to find two of the largest Selenites, had their long white bodies inserted into the shells of their aquatic cousins and all that remained of the soft parts of my new-found treasures, was the tip end of their bodies in the last whorl of the spires of their shells. Physa var. Columbiana Hemphill.

Shell globose or moderately elongated, shining, solid; of a dark horn, or chestnut color; whorls four, the last occupying about three-quarters the entire length of the shell; suture well defined and generally marked by a fine yellowish line; spire short, obtuse; aperture long and moderately wide; outer lip simple, thickened internally with a dark chestnut deposit that shows on the outside as a yellowish band; columella lip somewhat sinuous, and well folded on the body whorl.

Length of an elongated specimen 5, breadth 5 of an inch.

Length of a globose specimen $\frac{1}{2}$, breadth $\frac{5}{16}$ of an inch.

Habitat: Columbia River, Astoria, Oregon.

I collected nearly two hundred specimens of this shell at the above locality in the month of November, 1877. They were found adhering to the underside of stones that are submerged several feet during high tide, associated with Goniobasis plicifera var. bulimoides Tryon. On comparison with specimens of Physa ampullacea Gld. collected by me in Owens River Valley, in 1869, and a few specimens from the upper Columbia also collected by myself, I am satisfied this shell is a small or miniature form of that species and not a variety of Physella globosa Hald. as supposed by the late G. W. Tryon. There is considerable variation in the form of this shell, but there is no plication on the columella, the only character in the genus Physella worth noticing. My specimens of Physa ampullacea Gld. from Owens River Valley, are very large and globose, with the columella strongly twisted, and are fully as well qualified to enter the genus Physella as the present specimens.

NOTES ON SOME NORTH AMERICAN PUPIDÆ WITH DESCRIPTIONS OF NEW SPECIES.

BY DR. V. STERKI, NEW PHILADELPHIA, OHIO.

Pupa Hemphilli sp. nov.

In examining a lot of about 45 specimens named *P. calamitosa* Pilsb., from the banks of St Thomas River, Lower California, I found that there were two distinct forms in them. The author says, in his description of *P. calamitosa*: "Several specimens have only one lamella on the outer lip and are rather larger than the

¹ The Nautilus iii, No. 6 (Oct., 1889).